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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
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08/941,459 09/30/97 MORIKAWA

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EXAMINER

024367 WM31/0925
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POKRYWA, J
ART UNIT PAPER NUMBER

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Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

Office Action Summary	Application No. 08/941,459	Applicant(s) MORIKAWA, TAKESHI	
	Examiner Joseph R. Pokrzywa	Art Unit 2022	

- The MAILING DATE of this communication appears on the cover sheet with the correspondence address -
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 05 July 2001.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 4-6, 13-16 and 23-35 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 4-6, 13-16 and 23-35 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Amendment

1. Applicant's amendment was received on 7/5/01, and has been entered and made of record. Currently, **claims 4-6, 13-16, and 23 through 35** are pending.

Response to Arguments

2. Applicant's arguments filed 7/5/01 have been fully considered but they are not persuasive.

3. In response to applicant's arguments regarding the rejection of *claim 4*, as being anticipated by Ishiguro *et al.* (U.S. Re. 34,460), which states on page 11 that Ishiguro fails to disclose a memory which stores image data of a plurality of frames, as applicant argues that Ishiguro discloses a memory that stores the size of a sheet being copied, whereby the size of a sheet is not image data, and the size of a sheet is not image data of a plurality of frames. The examiner disagrees. As the claim is written, it can be interpreted that the sheet size is image data. A size of sheet being copied is data of an image, therein being "image data". Further, the RAM in Ishiguro stores the data of an image of the size S1 of the sheet being copied, as well as the data of an image of the size Sx selected at the start of the copying operation, as read in column 18, lines 64 through 67. Thus, Ishiguro teaches of a memory for storing image data of a plurality of frames, as required by the claim.

Further, applicant argues on page 11 that Ishiguro fails to teach of determining a state of the frames of stored image data and comparing the determined states. Ishiguro teaches of

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determining, for each frame (Sx and S1), a state of a frame of the image data stored in the memory (whereby the control circuit determines the size of the data of an image of Sx and S1 stored in the RAM, thereby determining the state of the frame), and then comparing these determined states between the two frames, as read in column 18, line 64 through column 19, line 7. Therefore, it can be interpreted that Ishiguro teaches of determining, for each frame, a state of a frame of the image data stored in the memory, and comparing the state between at least two frames, as required by the claim.

4. Therefore, the rejection of *claim 4*, as well as *claims 6 and 27* that depend therefrom, as cited in the Office action dated 4/10/01, under 35 U.S.C. 102(b), as being anticipated by Ishiguro *et al.*, is maintained and repeated in this Office action. Further, for the same reasons discussed above, the rejection of *claims 13, 14, 28, 29, 30, and 35*, as cited in the Office action dated 4/10/01, under 35 U.S.C. 102(b), as being anticipated by Ishiguro *et al.*, is maintained and repeated in this Office action.

5. In response to applicant's arguments regarding the rejection of *claim 31*, as being anticipated by Shinada *et al.* (U.S. Patent Number 5,008,709), which states on page 15 that Shinada fails to disclose comparing the sizes of all of the original documents and based on a result of that comparison, permitting an editing function on a image when all images are uniform in size and otherwise not permit editing. Shinada teaches of determining a size of an image corresponding to image data of each image stored in the memory (read in column 24, lines 3 through 21, and column 32, lines 44 through 48, as well as column 39, lines 56 through 66, wherein the size of the documents is sensed and stored in memory). Further Shinada teaches of

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controlling the editing an image (being the magnification, in this case) when all images corresponding to the plurality of originals are uniform in size (see column 41, lines 24 through 40, as well as column 39, line 56 through column 40, line 68, wherein the magnification is processed on all images corresponding to the plurality of originals uniform in size) and otherwise prohibiting editing an image (see column 41, lines 24 through 40, as well as column 39, line 56 through column 40, line 68, wherein the magnification is prohibited from processing on documents that differ in size). The examiner agrees with applicant, in that there are fundamental differences in the current invention and the invention of Shinada, but as the claim is currently written, Shinada can be interpreted as teaching the feature of determining a size of an image corresponding to image data of each image stored in the memory, and controlling the editing of an image when all images corresponding to the plurality of originals are uniform in size and otherwise prohibiting editing an image, as required in claim 31.

6. Therefore, the rejection of *claim 31*, as cited in the Office action dated 4/10/01, under 35 U.S.C. 102(b), as being anticipated by Shinada *et al.*, is maintained and repeated in this Office action.

7. In response to applicant's arguments regarding the rejection of *claim 33*, as being anticipated by Shinada *et al.* which states on page 16 that Shinada fails to disclose that the size of each of a plurality of originals be determined and compared, and when all images corresponding to the plurality of originals are uniform in size, permit stapling, whereas when all images corresponding to the plurality of originals are not uniform in size, not permitting stapling. Shinada teaches of determining a size of an image corresponding to image data of each image

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stored in the memory (read in column 24, lines 3 through 21, and column 32, lines 44 through 48, as well as column 39, lines 56 through 66, wherein the size of the documents is sensed and stored in memory). Further, Shinada teaches of permitting the stapler to operate when all images corresponding to the plurality of originals are uniform in size (see column 29, line 46 through column 32, line 17, as well as column 39, line 56 through column 40, line 60, wherein the binding by the stapler is processed on all images corresponding to the plurality of originals uniform in size) and otherwise prohibiting the stapler from operating (see column 29, line 46 through column 32, line 17, as well as column 39, line 56 through column 40, line 60, wherein the binding by the stapler is prohibited when the documents differ in size, as the binding of copies occurs only when the document sizes are equal). The examiner agrees with applicant, in that there are fundamental differences in the current invention and the invention of Shinada, but as the claim is currently written, Shinada can be interpreted as teaching the feature of permitting the stapler to operate when all images corresponding to the plurality of originals are uniform in size and otherwise prohibiting the stapler from operating, as required by claim 33.

Further, applicant argues on page 16 and 17 that Shinada fails to teach of prohibiting stapling of copies in the situation where the size of the copies is not uniform. The examiner notes the current limitation of claim 33, which requires "means for determining a size of an image corresponding to image data of each image stored in the memory, and means for controlling, responsive to the means for determining, which permits the stapler to operate when all images corresponding to the plurality of originals are uniform in size and otherwise prohibiting the stapler from operating". The limitation of the copies not being uniform is not a requirement in the claim.

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8. Therefore, the rejection of *claim 33*, as cited in the Office action dated 4/10/01, under 35 U.S.C. 102(b), as being anticipated by Shinada *et al.*, is maintained and repeated in this Office action. Further, for the same reasons discussed above, the rejection of *claim 35*, as cited in the Office action dated 4/10/01, under 35 U.S.C. 102(b), as being anticipated by Shinada *et al.*, is maintained and repeated in this Office action.

9. In response to applicant's arguments regarding the rejection of *claim 5*, as being unpatentable over Ishiguro *et al.* (U.S. Re. 34,460) in view of Oshita (U.S. Patent Number 5,343,306), which states on pages 18 and 19 that Ishiguro and Oshita fail to disclose a memory which determines the state of two frames of image data, compares the determined states, and prohibits a mode based on the result of the comparison. As discussed above in claim 4, Ishiguro can be interpreted as teaching these features.

10. Therefore, the rejection of *claim 5*, as cited in the Office action dated 4/10/01, under 35 U.S.C. 103(a), as being unpatentable over Ishiguro *et al.* in view of Oshita, is maintained and repeated in this Office action.

11. In response to applicant's arguments regarding the rejection of *claims 15 and 16*, as being unpatentable over Ishiguro *et al.* (U.S. Re. 34,460) over Matsuo, which states on pages 19 through 21 that Ishiguro and Matsuo fail to disclose a memory which stores image data of a plurality of frames, and prohibiting selection of an inoperative mode when the size of the originals is not uniform. As discussed in claim 13, Ishiguro can be interpreted as teaching these features.

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12. Therefore, the rejection of *claims 15 and 16*, as cited in the Office action dated 4/10/01, under 35 U.S.C. 103(a), as being unpatentable over Ishiguro *et al.* in view of Matsuo *et al.*, is maintained and repeated in this Office action.

13. In response to applicant's arguments regarding the rejection of *claims 23 and 24*, as being unpatentable over Collard *et al.* (U.S. Patent Number 5,825,988) in view of Ishiguro *et al.* (U.S. Re. 34,460), which states on page 22 that Ishiguro fails to teach of comparing the state between two frames, and automatically prohibiting selecting an inoperable print mode based on the comparison. As discussed in claim 13, Ishiguro can be interpreted as teaching these features.

14. Therefore, the rejection of *claims 23 and 24*, as cited in the Office action dated 4/10/01, under 35 U.S.C. 103(a), as being unpatentable over Collard *et al.* in view of Ishiguro *et al.*, is maintained and repeated in this Office action. Similarly for the same reasons as above, the rejection of *claims 25 and 26*, as cited in the Office action dated 4/10/01, under 35 U.S.C. 103(a), as being unpatentable over Collard *et al.* in view of Ishiguro *et al.*, and further in view of Matsuo *et al.*, is maintained and repeated in this Office action.

15. In response to applicant's arguments regarding the rejection of *claims 32 and 34*, as being unpatentable over Shinada *et al.* (U.S. Patent Number 5,008,709) in view of Yoshida *et al.* (U.S. Patent Number 5,930,006), which states on pages 23 through 26 that Yoshida fails to teach of the deficiencies argued to be lacking in Shinada. As discussed above in claims 31 and 33, Shinada can be interpreted as teaching these features.

16. Therefore, the rejection of *claims 32 and 34*, as cited in the Office action dated 4/10/01, under 35 U.S.C. 103(a), as being unpatentable over Shinada *et al.* in view of Yoshida *et al.*, is maintained and repeated in this Office action.

Claim Rejections - 35 USC § 112

17. The rejection of **claims 14 through 16**, as cited in the Office action dated 4/10/01, under 35 U.S.C. 112, are overcome by the changes set forth in the amendment.

Claim Rejections - 35 USC § 102

18. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

19. **Claims 4, 6, 13, 14, 27 through 30, and 35** are rejected under 35 U.S.C. 102(b) as being anticipated by Ishiguro *et al.* (U.S. Patent Number Re. 34,460, cited in the Office action dated 4/10/01).

Regarding *claim 4*, Ishiguro discloses an image processing device (see Fig. 1) operable in a plurality of modes of operation (see Fig. 18, column 12, line 37 through column 13, line 25) comprising a memory (RAM) for storing image data of a plurality of frames (column 18, line 64 through column 19, line 1), a controller (control circuit, seen in Fig. 19) for determining, for each frame, a state of a frame of the image data stored in the memory (being the size of the sheet, column 18, line 64 through column 19, line 1, wherein the size is determined for S1 and Sx, which are stored in the RAM), an operation panel for selecting any of the plurality of modes of operation (see Figs. 16 through 18, column 12, line 37 through column 13, line 25, and column

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14, lines 11 through 28), and a controller (control circuit, seen in Fig. 19) for comparing the state between at least two frames, as determined by the state decision controller (column 18, line 64 through column 19, line 7, wherein the sheet size S1 and Sx are compared), and for automatically prohibiting selecting an inoperable mode of operation of the plurality of modes of operation through the operation panel based on the result of the comparison (column 19, lines 2 through 7, and lines 39 through 44).

Regarding *claim 6*, Ishiguro discloses the device discussed above in claim 4, and further teaches that the state decision controller determines a frame size of the frame of the image data (column 18, line 64 through column 19, line 1).

Regarding *claim 13*, Ishiguro discloses an image forming apparatus (see Fig. 1) operable in a plurality of print modes (see Fig. 18, column 12, line 37 through column 13, line 25) comprising a memory (RAM) for storing image data of a plurality of frames (column 18, line 64 through column 19, line 1), a printer for reading the image data stored in the memory for each frame and for printing (column 20, lines 3 through 16), a controller (control circuit, seen in Fig. 19) for determining, for each frame, a state of a frame of the image data stored in the memory (being the size of the sheet, column 18, line 64 through column 19, line 1, wherein the size is determined for S1 and Sx, which are stored in the RAM), an operation panel for selecting any of the plurality of print modes (see Figs. 16 through 18, column 12, line 37 through column 13, line 25, and column 14, lines 11 through 28), and a controller (control circuit, seen in Fig. 19) for comparing the state between at least two frames, as determined by the state decision controller (column 18, line 64 through column 19, line 7, wherein the sheet size S1 and Sx are compared), and for automatically prohibiting selection of an inoperable print mode of the plurality of print

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modes through the operation panel based on the result of the comparison (column 19, lines 2 through 7, and lines 39 through 44).

Regarding *claim 14*, Ishiguro discloses the apparatus discussed above in claim 13, and further teaches of a finisher for stapling sheets printed by the printer (stapler 100 being part of sorter 40, see Figs. 1 and 2, column 7, lines 26 through 32, and column 11, lines 37 through 47), wherein the state decision controller determines whether the image data stored in the memory includes image data having a frame size different than a frame size of other image data stored in the memory (column 18, line 64 through column 19, line 1, wherein the size is determined for S1 and Sx, which are stored in the RAM), and the selection prohibiting controller prohibits selecting a staple print mode through the operation panel when it is determined that the memory includes image data having a frame size different than a frame size of other image data stored in the memory (column 18, line 64 through column 19, line 7, whereby the finishing mode is prohibited, thereby prohibiting the staple mode), with the staple print mode being provided so that the finisher provides a staple processing (column 19, lines 39 through 61).

Regarding *claim 27*, Ishiguro discloses the device discussed above in claim 4, and further teaches of a display for displaying an operating state of the image processing device (see Figs. 16 and 18, panels 120 and 150, wherein panel 120 includes indicator 125, column 12, lines 41 through 55), and a display controller, responsive to the selection prohibiting controller, for displaying on the display an operable mode of operation of the plurality of modes of operation (column 16, lines 11 through 16).

Regarding *claim 28*, Ishiguro discloses an image processing device (see Fig. 1) operable in a plurality of modes of operation (see Fig. 18, column 12, line 37 through column 13, line 25)

comprising a memory (RAM) for storing image data of a plurality of frames (column 18, line 64 through column 19, line 1), a controller (control circuit, seen in Fig. 19) for determining, for each frame, a state of a frame of the image data stored in the memory (being the size of the sheet, column 18, line 64 through column 19, line 1, wherein the size is determined for S1 and Sx, which are stored in the RAM), a controller (control circuit, seen in Fig. 19), responsive to the state decision controller, for comparing the state between at least two frames, as determined by the state decision controller (column 18, line 64 through column 19, line 7, wherein the sheet size S1 and Sx are compared), and for determining an inoperable mode of operation of the plurality of modes of operation based on the result of the comparison (column 19, lines 2 through 7, wherein the finishing mode is determined to be impossible, with the alarm flag F3 being set to "1" and the finishing mode flag being set to "1"), and an operation panel, responsive to the selection prohibiting controller, for selecting any of the plurality of modes of operation (see Figs. 16 through 18, column 12, line 37 through column 13, line 25, and column 14, lines 11 through 28), with the operation panel automatically prohibiting selecting the thus determined inoperable mode of operation (see Fig. 25c, steps S76 and S76a, column 14, lines 19 through 35, and column 16, lines 12 through 16).

Regarding *claim 29*, Ishiguro discloses the device discussed above in claim 28, and further teaches that the state of the frame of the image data determined by the state decision controller for each frame thereof is a frame size (column 18, line 64 through column 19, line 1).

Regarding *claim 30*, Ishiguro discloses the device discussed above in claim 30, and further teaches that the plurality of modes of operation include at least one of economy print

mode, two-sided print mode, and staple print mode (column 19, lines 39 through 61, see Fig. 33, wherein the stapling processing is part of the finishing mode).

Regarding *claim 35*, Ishiguro discloses an image formation apparatus comprising a memory (RAM) for storing image data corresponding to a plurality of images (column 18, line 64 through column 19, line 1), a print portion for forming an image on a sheet (column 6, lines 49 through 61) from image data stored in the memory (column 14, lines 5 through 56, column 18, lines 64 through 66, and column 20, lines 3 through 16), a stapler (stapler 100, see Fig. 1) for stapling a plurality of printed sheets (column 11, lines 37 through 47), and a controller (control circuit, seen in Fig. 19) for which permits the stapler to operate when all of the plurality of printed sheets have images formed thereon from image data stored in the memory which are uniform in size and otherwise prohibiting the stapler from operating (column 18, line 64 through column 19, line 7, wherein the finishing mode is prohibited, with the finishing flag being reset to "0", thereby prohibiting the stapling operation from being performed).

20. **Claims 31, 33, and 35** are rejected under 35 U.S.C. 102(b) as being anticipated by Shinada *et al.* (U.S. Patent Number 5,008,709, cited in the Office action dated 4/10/01).

Regarding *claim 31*, Shinada discloses an image formation apparatus (see Fig. 1) comprising a sensor (document sensor 37) for reading an image on an original (column 7, lines 8 through 48), a memory (buffers, column 226-228, seen in Fig. 13A, and column 14, line 64 through column 15, line 9) for storing image data read by the sensor (column 18, lines 38 through 42, and column 40, lines 28 through 35), means (priority magnification select subroutine) for editing image data from image data stored in the memory (column 34, lines 30

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through 43), an image forming portion for using edited image data to print an image (magnified documents, column 40, lines 35 through 56), a feeder (RDH 10) capable of feeding originals having different sizes to an image reading position (column 5, lines 4 through 12), means for reading (optics 4) mixed originals for reading a plurality of originals collectively set in the feeder (column 5, lines 22 through 39, and column 40, lines 40 through 51), means for determining a size of an image corresponding to image data of each image stored in the memory (column 39, line 56 through column 40, line 6), and means for controlling, responsive to the means for determining, which permits the means for editing to edit an image when all images corresponding to the plurality of originals are uniform in size (column 39, line 56 through column 40, line 68) and otherwise prohibiting the means for editing from editing an image (column 39, line 56 through column 40, line 68, and column 41, lines 24 through 40, wherein the means for editing, being the magnification routine, is prohibited on documents which are not uniform in size with the selected size).

Regarding *claim 33*, Shinada discloses an image formation apparatus (see Fig. 1) comprising a sensor (document sensor 37) for reading an image on an original (column 7, lines 8 through 48), a memory (buffers, column 226-228, seen in Fig. 13A, and column 14, line 64 through column 15, line 9) for storing image data read by the sensor (column 18, lines 38 through 42, and column 40, lines 28 through 35), an image forming portion for using edited image data stored in the memory to print an image (magnified documents, column 40, lines 35 through 56), a stapler for stapling a plurality of sheets each bearing a formed image thereon (stapler unit 150, column 11, lines 10 through 21), a feeder (RDH 10) capable of feeding originals having different sizes to an image reading position (column 5, lines 4 through 12),

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means for reading (optics 4) mixed originals for reading a plurality of originals collectively set in the feeder (column 5, lines 22 through 39, and column 40, lines 40 through 51), means for determining a size of an image corresponding to image data of each image stored in the memory (column 39, line 56 through column 40, line 6), and means for controlling, responsive to the means for determining, which permits the stapler to operate when all images corresponding to the plurality of originals are uniform in size (column 40, lines 30 through 68) and otherwise prohibiting the stapler from operating (column 40, lines 30 through 68, and column 29, line 46 through column 32, line 17, wherein the stapler is prohibited from operating on documents which are not uniform in size with the selected size, until all of the documents are copied in one uniform size).

Regarding *claim 35*, Shinada discloses an image formation apparatus (see Fig. 1) comprising a memory (buffers, column 226-228, seen in Fig. 13A, and column 14, line 64 through column 15, line 9) for storing image data corresponding to a plurality of images (column 18, lines 38 through 42, and column 40, lines 28 through 35), a stapler for stapling a plurality of printed sheets (stapler unit 150, column 11, lines 10 through 21), and a controller which permits the stapler to operate when all of the plurality of printed sheets have images formed thereon from image data stored in the memory which are uniform in size (column 40, lines 30 through 68) and otherwise prohibiting the stapler from operating (column 40, lines 30 through 68, and column 29, line 46 through column 32, line 17, wherein the stapler is prohibited from operating on documents which are not uniform in size with the selected size, until all of the documents are copied in one uniform size).

Claim Rejections - 35 USC § 103

21. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

22. **Claim 5** is rejected under 35 U.S.C. 103(a) as being unpatentable over Ishiguro *et al.* (U.S. Patent Number Re. 34,460, cited in the Office action dated 4/10/01) in view of Oshita (U.S. Patent Number 5,343,306, cited in the Office action dated 4/10/01).

Regarding *claim 5*, Ishiguro discloses the apparatus discussed above in claim 4, but fails to specifically teach if the state decision controller determines a length of a frame of the image data. Oshita discloses an image processing device (facsimile machine, column 1, lines 46 through 53) operable in a plurality of modes of operation (transmitting or receiving modes), comprising a memory (page memory 102) for storing image data of a plurality of frames (column 3, lines 16 and 17, wherein a plurality of frames or pages of documents are stored in the page memory, see column 8, lines 3 through 17), a controller (line counter 107, column 3, lines 48 through 51) for determining, for each frame, a state of a frame of the image data (column 5, lines 26 through 33), an operation panel (manual input section 108) for selecting any of the plurality of modes of operation (column 4, lines 1 through 6), and a controller (controller 10, column 2, lines 32 through 40) for comparing the state of two frames, as determined by the state decision controller (column 5, lines 26 through 41, wherein the length of at least two sheets are compared to the currently loaded cut sheet length), and for automatically prohibiting selecting an inoperable mode (column 5, lines 42 through 49) of operation of the plurality of modes of operation through the operation panel based on the result of the comparison (column 5, line 64 through column 6, line 35, column 6, line 64 through column 7, line 20). Further, Oshita teaches

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that the state decision controller determines a length of a frame of the image data in a predetermined direction (column 3, lines 48 through 68). Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to include Oshita's teachings in Ishiguro's system. Ishiguro's system would easily be modified to include Oshita's teachings, as the system's share cumulative features, being additive in nature.

23. **Claims 15 and 16** are rejected under 35 U.S.C. 103(a) as being unpatentable over Ishiguro *et al.* (U.S. Patent Number Re. 34,460, cited in the Office action dated 4/10/01) in view of Matsuo *et al.* (U.S. Patent Number 4,912,518, cited in the Office action dated 4/10/01).

Regarding *claim 15*, Ishiguro discloses the apparatus discussed above in claim 13, and further teaches that the state decision controller determines whether the image data stored in the memory all have the same frame size (column 18, line 64 through column 19, line 7). However, Ishiguro fails to teach of the selection prohibiting controller prohibiting selecting a two-sided print mode through the operation panel when it is determined that the image data stored in the memory do not all have a same frame size, the two-sided print mode being provided for printing the image data of a plurality of frames on both sides of a sheet. Matsuo discloses an image forming apparatus (see Fig. 1) operable in a plurality of print modes (column 7, lines 53 through 68) comprising a printer for printing (column 6, lines 3 through 20), a controller for determining, for each frame, a state of a frame of the image data (column 6, line 23 through column 7, line 24), an operation panel for selecting any of the plurality of print modes (see Fig. 6, column 15, lines 1 through 34), and a controller for comparing the state between at least two frames, as determined by the state decision controller (column 23, lines 34 through 45), and for

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automatically prohibiting selection of an inoperable print mode of the plurality of print modes through the operation panel based on the result of the comparison (column 21, lines 58 through 68). Further, Matsuo teaches that the state decision controller determines whether the image data all have the same frame size (column 21, lines 58 through 68) and the selection prohibiting controller prohibits selecting an two-side print mode (column 14, lines 24 through 38) through the operation panel when it is determined that the image data do not all have a same frame size, the two-side print mode being provided for printing the image data of a plurality of frames on both sides of a sheet (column 3, lines 45 through 50, column 21, lines 58 through 68, and column 23, lines 32 through 45). Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to include Matsuo's teachings in Ishiguro's system. Ishiguro's system would easily be modified to include Matsuo's teachings, as the system's share cumulative features, being additive in nature.

Regarding *claim 16*, Ishiguro discloses the apparatus discussed above in claim 13, and further teaches that the state decision controller determines whether the image data stored in the memory all have the same frame size (column 18, line 64 through column 19, line 7). However, Ishiguro fails to teach of the selection prohibiting controller prohibiting selecting an economy print mode through the operation panel when it is determined that the image data stored in the memory do not all have a same frame size, the economy print mode being provided for printing the image data of a plurality of frames on one same side of a sheet. Matsuo discloses an image forming apparatus (see Fig. 1) operable in a plurality of print modes (column 7, lines 53 through 68) comprising a printer for printing (column 6, lines 3 through 20), a controller for determining, for each frame, a state of a frame of the image data (column 6, line 23 through column 7, line

24), an operation panel for selecting any of the plurality of print modes (see Fig. 6, column 15, lines 1 through 34), and a controller for comparing the state between at least two frames, as determined by the state decision controller (column 23, lines 34 through 45), and for automatically prohibiting selection of an inoperable print mode of the plurality of print modes through the operation panel based on the result of the comparison (column 21, lines 58 through 68). Further, Matsuo teaches that the state decision controller determines whether the image data all have the same frame size (column 21, lines 58 through 68) and the selection prohibiting controller prohibits selecting an economy print mode (column 14, lines 24 through 38) through the operation panel when it is determined that the image data do not all have a same frame size, the economy print mode being provided for printing the image data of a plurality of frames on one same side of a sheet (column 21, lines 58 through 68, and column 23, lines 32 through 45). Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to include Matsuo's teachings in Ishiguro's system. Ishiguro's system would easily be modified to include Matsuo's teachings, as the system's share cumulative features, being additive in nature.

24. **Claims 23 and 24** are rejected under 35 U.S.C. 103(a) as being unpatentable over Collard *et al.* (U.S. Patent Number 5,825,988, cited in the Office action dated 4/10/01) in view of Ishiguro *et al.* (U.S. Patent Number Re. 34,460, cited in the Office action dated 4/10/01).

Regarding **claim 23**, Collard discloses an image forming apparatus operable in a plurality of print modes (see Figs. 6A and 6B, digital, 2-sided, and 1-sided modes), comprising a memory (central storage means 15, or memory disc 23) for storing a plurality of print jobs (column 5,

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lines 9 through 61), each print job containing image data of at least two frames (column 5, lines 20 through 29), a selector for selecting one of the plurality of print jobs stored in the memory (column 7, lines 18 through 27), a controller (control module 18) for determining, for each frame, a state of a frame of the image data contained in the print job selected by the print-job selector (column 7, lines 28 through 37), a printer (printing unit 3) for printing the image data contained in the print job selected by the print-job selector (column 4, lines 15 through 60), an operation panel (panel 19) for selecting any of the plurality of print modes (column 6, lines 10 through 65), and a controller (control unit 18) for selecting a print mode of the plurality of print modes through the operation panel based on the thus determined state of the image data contained in the print job selected by the print-job selector (column 4, line 61 through column 5, line 8, and column 7, lines 33 through 63).

However, Collard fails to teach of the controller for comparing the state between at least two frames, as determined by the state decision controller, and for automatically prohibiting selecting an inoperable print mode based on the result of the comparison. Ishiguro discloses an image forming apparatus (see Fig. 1) operable in a plurality of print modes (see Fig. 18, column 12, line 37 through column 13, line 25) comprising a memory (RAM) for storing image data of a plurality of frames (column 18, line 64 through column 19, line 1), a printer for reading the image data stored in the memory for each frame and for printing (column 20, lines 3 through 16), a controller (control circuit, seen in Fig. 19) for determining, for each frame, a state of a frame of the image data stored in the memory (being the size of the sheet, column 18, line 64 through column 19, line 1, wherein the size is determined for S1 and Sx, which are stored in the RAM), an operation panel for selecting any of the plurality of print modes (see Figs. 16 through 18,

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column 12, line 37 through column 13, line 25, and column 14, lines 11 through 28), and a controller (control circuit, seen in Fig. 19) for comparing the state between at least two frames, as determined by the state decision controller (column 18, line 64 through column 19, line 7, wherein the sheet size S1 and Sx are compared), and for automatically prohibiting selection of an inoperable print mode of the plurality of print modes through the operation panel based on the result of the comparison (column 19, lines 2 through 7, and lines 39 through 44). Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to include Ishiguro's teachings within Collard's system. Collard's system would easily be modified to include Ishiguro's teachings, since both systems share cumulative features, being additive in nature.

Regarding *claim 24*, Collard and Ishiguro disclose the apparatus discussed above in claim 23, and Ishiguro further teaches of a finisher for stapling sheets printed by the printer (stapler 100 being part of sorter 40, see Figs. 1 and 2, column 7, lines 26 through 32, and column 11, lines 37 through 47), wherein a print job selected contains image data of a plurality of frames and the state decision controller determines whether the selected print job contains image data of a plurality of frames and the state decision controller determines whether the print job selected contains image data having a frame size different than a frame size of other image data contained in the selected print job (column 18, line 64 through column 19, line 1, wherein the size is determined for S1 and Sx, which are stored in the RAM), and wherein the selection prohibiting controller prohibits selecting a staple print mode through the operation panel when it is determined that the selected print job contains image data having a frame size different than a frame size of other image data contained in the selected print job (see abstract, column 3, lines

16 through 19, and column 18, line 64 through column 19, line 7, whereby the finishing mode is prohibited, thereby prohibiting the staple mode), with the staple print mode being provided so that the finisher provides a staple processing (column 19, lines 39 through 61). Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to include Ishiguro's further teachings within Collard's system. Collard's system would easily be modified to include Ishiguro's teachings, since both systems share cumulative features, being additive in nature.

25. **Claims 25 and 26** are rejected under 35 U.S.C. 103(a) as being unpatentable over Collard *et al.* (U.S. Patent Number 5,825,988, cited in the Office action dated 4/10/01) in view of Ishiguro *et al.* (U.S. Patent Number Re. 34,460, cited in the Office action dated 4/10/01), and further in view of Matsuo *et al.* (U.S. Patent Number 4,912,518, cited in the Office action dated 4/10/01).

Regarding **claim 25**, Collard and Ishiguro disclose the apparatus discussed above in claim 23, and Ishiguro further teaches that the state decision controller determines whether the image data contained in the selected image data all have the same frame size (column 18, line 64 through column 19, line 7). However, Collard and Ishiguro fail to teach of the selection prohibiting controller prohibiting selecting an two-side print mode through the operation panel when it is determined that the image data contained in the selected print job do not all have a same frame size, the two-side print mode being provided for printing the image data of a plurality of frames on both sides of a sheet. Matsuo discloses an image forming apparatus (see Fig. 1) operable in a plurality of print modes (column 7, lines 53 through 68) comprising a

printer for printing (column 6, lines 3 through 20), a controller for determining, for each frame, a state of a frame of the image data (column 6, line 23 through column 7, line 24), an operation panel for selecting any of the plurality of print modes (see Fig. 6, column 15, lines 1 through 34), and a controller for comparing the state between at least two frames, as determined by the state decision controller (column 23, lines 34 through 45), and for automatically prohibiting selection of an inoperable print mode of the plurality of print modes through the operation panel based on the result of the comparison (column 21, lines 58 through 68). Further, Matsuo teaches that that the state decision controller determines whether the image data all have the same frame size (column 21, lines 58 through 68) and the selection prohibiting controller prohibits selecting a two-side print mode (column 14, lines 24 through 38) through the operation panel when it is determined that the image data do not all have a same frame size, the two-side print mode being provided for printing the image data of a plurality of frames on both sides of a sheet (column 3, lines 45 through 50, column 21, lines 58 through 68, and column 23, lines 32 through 45).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to include Matsuo's teachings in Ishiguro's system. Ishiguro's system would easily be modified to include Matsuo's teachings, as the system's share cumulative features, being additive in nature.

Regarding *claim 26*, Collard and Ishiguro disclose the apparatus discussed above in claim 23, and Ishiguro further teaches that the state decision controller determines whether the image data contained in the selected image data all have the same frame size (column 18, line 64 through column 19, line 7). However, Collard and Ishiguro fail to teach of the selection prohibiting controller prohibiting selecting an economy print mode through the operation panel

when it is determined that the image data contained in the selected print job do not all have a same frame size, the economy print mode being provided for printing the image data of a plurality of frames on one same side of a sheet. Matsuo discloses an image forming apparatus (see Fig. 1) operable in a plurality of print modes (column 7, lines 53 through 68) comprising a printer for printing (column 6, lines 3 through 20), a controller for determining, for each frame, a state of a frame of the image data (column 6, line 23 through column 7, line 24), an operation panel for selecting any of the plurality of print modes (see Fig. 6, column 15, lines 1 through 34), and a controller for comparing the state between at least two frames, as determined by the state decision controller (column 23, lines 34 through 45), and for automatically prohibiting selection of an inoperable print mode of the plurality of print modes through the operation panel based on the result of the comparison (column 21, lines 58 through 68). Further, Matsuo teaches that that the state decision controller determines whether the image data all have the same frame size (column 21, lines 58 through 68) and the selection prohibiting controller prohibits selecting an economy print mode (column 14, lines 24 through 38) through the operation panel when it is determined that the image data do not all have a same frame size, the economy print mode being provided for printing the image data of a plurality of frames on one same side of a sheet (column 21, lines 58 through 68, and column 23, lines 32 through 45). Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to include Matsuo's teachings in Ishiguro's system. Ishiguro's system would easily be modified to include Matsuo's teachings, as the system's share cumulative features, being additive in nature.

26. **Claims 32 and 34** are rejected under 35 U.S.C. 103(a) as being unpatentable over Shinada *et al.* (U.S. Patent Number 5,008,709, cited in the Office action dated 4/10/01) in view of Yoshida *et al.* (U.S. Patent Number 5,930,006, cited in the Office action dated 4/10/01).

Regarding **claim 32**, Shinada discloses the apparatus discussed above in claim 31, but fails to teach if the means for editing image edits an image in the manner suitable for providing two images for printing on a single side of a sheet. Yoshida discloses an image forming apparatus that includes a means for editing an image in the manner suitable for providing two images for printing on a single side of a sheet (column 10, lines 32 through 43, wherein N=2). Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to include Yoshida's teachings in Shinada's system. Shinada's system would become more versatile with the addition of Yoshida's teachings, as a user would have added options for a desired output format.

Regarding **claim 34**, Shinada discloses an image formation apparatus (see Fig. 1) comprising a memory (buffers, column 226-228, seen in Fig. 13A, and column 14, line 64 through column 15, line 9) for storing image data corresponding to a plurality of images (column 18, lines 38 through 42, and column 40, lines 28 through 35), means (priority magnification select subroutine) for editing image data from image data stored in the memory (column 34, lines 30 through 43), and means for controlling, which permits the means for editing to operate when image data stored in the memory are uniform in image size (column 39, line 56 through column 40, line 68) and otherwise prohibiting the means for editing from operating (column 39, line 56 through column 40, line 68, wherein the means for editing, being the magnification routine, is prohibited on documents which are not uniform in size with the selected size).

However, Shinada fails to teach if the means for editing edits in a manner suitable for providing two images on a single side of a sheet. Yoshida discloses an image formation apparatus comprising a memory (multiport image memory 304 within memory 30, see Fig. 5) for storing image data corresponding to a plurality of images (column 6, lines 47 through 51, wherein two pages are stored, and column 7, lines 25 through 28), means for editing image data from image data stored in the memory in a manner suitable for providing two images on a single side of a sheet (column 10, lines 32 through 43, wherein $N=2$), and means for controlling, which permits the means for editing to operate and otherwise prohibiting the means for editing from operating (column 16, lines 17 through 55). Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to include Yoshida's teachings in Shinada's system. Shinada's system would become more versatile with the addition of Yoshida's teachings, as a user would have added options for a desired output format.

Conclusion

27. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event,

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however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

28. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Joe Pokrzywa whose telephone number is (703) 305-0146. The examiner can normally be reached on Monday-Friday, 8:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Edward L. Coles can be reached on (703) 305-4712. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9314 for regular communications and (703) 872-9314 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 306-0377.

J.R.P.

Joseph R. Pokrzywa
Examiner
Art Unit 2622

jrj
September 21, 2001

Edward L. Coles
EDWARD COLES

SUPERVISORY PATENT EXAMINER
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